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APR 28 2003

TECH CENTER



OIPE

#18

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/904,923B

DATE: 04/15/2003

TIME: 13:16:50

Input Set : N:\AMC\I904923b.raw

Output Set: N:\CRF4\04152003\I904923B.raw

1 <110> APPLICANT: Novartis AG  
 2 <120> TITLE OF INVENTION: Modified viral surface proteins for binding to extracellular  
 3 matrix components  
 4 <130> FILE REFERENCE: 4-30246a/GTI  
 C--> 5 <140> CURRENT APPLICATION NUMBER: US/09/904,923B  
 6 <141> CURRENT FILING DATE: 2001-07-13  
 7 <160> NUMBER OF SEQ ID NOS: 3  
 8 <170> SOFTWARE: Patentln version 3.1  
 10 <210> SEQ ID NO: 1  
 11 <211> LENGTH: 229  
 12 <212> TYPE: PRT  
 13 <213> ORGANISM: Moloney murine leukemia virus  
 14 <400> SEQUENCE: 1

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18				20					25					30		
19	Pro	Leu	Trp	Thr	Trp	Trp	Pro	Asp	Leu	Thr	Pro	Asp	Leu	Cys	Met	Leu
20				35				40					45			
21	Ala	His	His	Gly	Pro	Ser	Tyr	Trp	Gly	Leu	Gly	Tyr	Gln	Ser	Pro	Phe
22		50					55					60				
23	Ser	Ser	Pro	Pro	Gly	Pro	Pro	Cys	Cys	Ser	Gly	Gly	Ser	Ser	Pro	Gly
24	65					70				75					80	
25	Cys	Ser	Arg	Asp	Cys	Glu	Glu	Pro	Leu	Thr	Ser	Leu	Thr	Pro	Arg	Cys
26				85						90				95		
27	Asn	Thr	Ala	Trp	Asn	Arg	Leu	Lys	Leu	Asp	Gln	Thr	Thr	His	Lys	Ser
28				100					105					110		
29	Asn	Glu	Gly	Phe	Tyr	Val	Cys	Pro	Gly	Pro	His	Arg	Pro	Arg	Glu	Ser
30			115					120					125			
31	Lys	Ser	Cys	Gly	Gly	Pro	Asp	Ser	Phe	Tyr	Cys	Ala	Tyr	Trp	Gly	Cys
32		130					135					140				
33	Glu	Thr	Thr	Gly	Arg	Ala	Tyr	Trp	Lys	Pro	Ser	Ser	Ser	Trp	Asp	Phe
34	145					150				155					160	
35	Ile	Thr	Val	Asn	Asn	Asn	Leu	Thr	Ser	Asp	Gln	Ala	Val	Gln	Val	Cys
36				165						170				175		
37	Lys	Asp	Asn	Lys	Trp	Cys	Asn	Pro	Leu	Val	Ile	Arg	Phe	Thr	Asp	Ala
38			180					185						190		
39	Gly	Arg	Arg	Val	Thr	Ser	Trp	Thr	Thr	Gly	His	Tyr	Trp	Gly	Leu	Arg
40			195					200					205			
41	Leu	Tyr	Val	Ser	Gly	Gln	Asp	Pro	Gly	leu	Thr	Phe	Gly	Ile	Arg	Leu
42		210					215						220			
43	Arg	Tyr	Gln	Asn	Leu											
44				225												

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TIME: 13:16:50

Input Set : N:\AMC\I904923b.raw

Output Set: N:\CRF4\04152003\I904923B.raw

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46 <210> SEQ ID NO: 2
47 <211> LENGTH: 687
48 <212> TYPE: DNA
49 <213> ORGANISM: Moloney murine leukemia virus
50 <400> SEQUENCE: 2
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53      cttaccccag atttatgtat gttagccac catggaccat cttattgggg gctagaatat      180
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55      tgttccagag actgcgaaga acctttaacc tccctcacc ctcggtgcaa cactgcctgg      300
56      aacagactca agctagacca gacaactcat aaatcaaag agggatttta tgtttgcccc      360
57      gggccccacc gccccgaga atccaagtca tgtgggggtc cagactcctt ctactgtgcc      420
58      tattggggct gtgagacaac cggtagagct tactggaag cctcctcatc atgggatttc      480
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60      tgggtgcaacc ccttagttat tcggtttaca gacgccggga gacgggttac ttcttgacc      600
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64 <210> SEQ ID NO: 3
65 <211> LENGTH: 10
66 <212> TYPE: PRT
67 <213> ORGANISM: Artificial Sequence
68 <220> FEATURE:
69 <223> OTHER INFORMATION: collagen-binding domain of von Willebrand Factor
70 <220> FEATURE:
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73 <223> OTHER INFORMATION:
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75      Trp Arg Glu Pro Ser Phe Met Ala Leu Ser
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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/904,923B

DATE: 04/15/2003  
TIME: 13:16:51

Input Set : N:\AMC\I904923b.raw  
Output Set: N:\CRF4\04152003\I904923B.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 2

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/904,923B

DATE: 04/15/2003

TIME: 13:16:51

Input Set : N:\AMC\I904923b.raw

Output Set: N:\CRF4\04152003\I904923B.raw

L:5 M:270 C: Current Application Number differs, Wrong Format

L:74 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:3,Line#:0



OIPE

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/904,923B

DATE: 04/14/2003

TIME: 08:50:15

Input Set : A:\EP.txt

Output Set: N:\CRF4\04142003\I904923B.raw

3 &lt;110&gt; APPLICANT: Novartis AG

5 &lt;120&gt; TITLE OF INVENTION: Modified viral surface proteins for binding to extracellular matrix

6 components

8 &lt;130&gt; FILE REFERENCE: 271010-463

10 &lt;140&gt; CURRENT APPLICATION NUMBER: US 09/904,923B

11 &lt;141&gt; CURRENT FILING DATE: 2001-07-13

14 &lt;160&gt; NUMBER OF SEQ ID NOS: 3

16 &lt;170&gt; SOFTWARE: PatentIn version 3.1

W--&gt; 17 &lt;210&gt; SEQ ID NO: 1

18 &lt;211&gt; LENGTH: 229

19 &lt;212&gt; TYPE: PRT

20 &lt;213&gt; ORGANISM: Moloney murine leukemia virus

22 &lt;400&gt; SEQUENCE: 1

Does No. Comply  
Corrected Diskette Needed

24 Ala Ser Pro Gly Ser Ser Pro His Gln Val Tyr Asn Ile Thr Trp Glu  
 25 1 5 10 15  
 28 Val Thr Asn Gly Asp Arg Glu Thr Val Trp Ala Thr Ser Gly Asn His  
 29 20 25 30  
 32 Pro Leu Trp Thr Trp Trp Pro Asp Leu Thr Pro Asp Leu Cys Met Leu  
 33 35 40 45  
 36 Ala His His Gly Pro Ser Tyr Trp Gly Leu Gly Tyr Gln Ser Pro Phe  
 37 50 55 60  
 40 Ser Ser Pro Pro Gly Pro Pro Cys Cys Ser Gly Gly Ser Ser Pro Gly  
 41 65 70 75 80  
 45 Cys Ser Arg Asp Cys Glu Glu Pro Leu Thr Ser Leu Thr Pro Arg Cys  
 46 85 90 95  
 49 Asn Thr Ala Trp Asn Arg Leu Lys Leu Asp Gln Thr Thr His Lys Ser  
 50 100 105 110  
 53 Asn Glu Gly Phe Tyr Val Cys Pro Gly Pro His Arg Pro Arg Glu Ser  
 54 115 120 125  
 56 Lys Ser Cys Gly Gly Pro Asp Ser Phe Tyr Cys Ala Tyr Trp Gly Cys  
 57 130 135 140  
 59 Glu Thr Thr Gly Arg Ala Tyr Trp Lys Pro Ser Ser Trp Asp Phe  
 60 145 150 155 160  
 62 Ile Thr Val Asn Asn Asn Leu Thr Ser Asp Gln Ala Val Gln Val Cys  
 63 165 170 175  
 65 Lys Asp Asn Lys Trp Cys Asn Pro Leu Val Ile Arg Phe Thr Asp Ala  
 66 180 185 190  
 68 Gly Arg Arg Val Thr Ser Trp Thr Thr Gly His Tyr Trp Gly Leu Arg  
 69 195 200 205  
 71 Leu Tyr Val Ser Gly Gln Asp Pro Gly Leu Thr Phe Gly Ile Arg Leu  
 72 210 215 220  
 74 Arg Tyr Gln Asn Leu  
 75 225

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78 <210> SEQ ID NO: 2  
79 <211> LENGTH: 687  
80 <212> TYPE: DNA  
83 <213> ORGANISM: Moloney murine leukemia virus  
86 <400> SEQUENCE: 2  
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91 cttaccccag atttatgtat gttagccac catggaccat cttattggg gctagaatat 180  
93 caatcccctt tttcttctcc cccggggccc ccttggtgct cagggggcag cagcccaggc 240  
95 tgttcagag actgcgaaga acctttaacc tccctcacc ctcggtgcaa cactgcctgg 300  
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101 tattggggct gtgagacaac cggtagagct tactggaagc cctcctcatc atgggatttc 480  
103 atcacagtaa acaacaatct cacctctgac caggctgtcc aggtatgcaa agataataag 540  
105 tggtgcaacc ccttagttat tcggtttaca gacgcggga gacgggttac ttcttgacc 600  
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112 <210> SEQ ID NO: 3  
113 <211> LENGTH: 10  
114 <212> TYPE: PRT  
117 <213> ORGANISM: Artificial Sequence  
119 <220> FEATURE:  
120 <223> OTHER INFORMATION: collagen-binding domain of von Willebrand Factor  
122 <400> SEQUENCE: 3  
124 Trp Arg Glu Pro Ser Phe Met Ala Leu Ser  
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129 #153407v1  
130 Page 3

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/904,923B

DATE: 04/14/2003

TIME: 08:50:16

Input Set : A:\EP.txt

Output Set: N:\CRF4\04142003\I904923B.raw

L:17 M:283 W: Missing Blank Line separator, <210> field identifier